The Trauma Professional's Blog

When To Call Opthalmology

Clinical Scenario - ER	Pearls	Typical disposition/communication
Corneal foreign body	get the bulk out, don't fuss about all the deeper rust ring	topical antibiotic, 1-2 day f/u
Peripheral and small corneal infiltrates		topical antibiotic, 1-2 day f/u
Central or large corneal infiltrates	may benefit from culture	Call
Hyphema	consider open globe, know the eye pressure	call or start drops (pred 1%qid, atropine 1% bid), antibiotic if also abrasion, 1 day f/u
Corneal abrasions		topical antibiotic, variable f/u
Herpetic eye disease, simplex or zoster		oral acyclovir, 1-2 day f/u
Cannulicular/lid margin laceration	Only a minority of our on-call staff repair these	No immediate management issues, call within 12 hours for either treatment or to initiate the planning for repair.
Flashes and floaters	Consider migraine aura, retinal detachment	Call or 1 day f/u
Double vision	Evaluate for 3rd nerve palsy, consider neurology consultation, imaging	Call vs f/u few days, varies
Orbit fracture	Consider open globe, orbital compartment syndrome. Consider the child with "white-eyed" blow out/green stick/trap door type fracture that infarcts the entrapped muscle (limited upgaze, possible bradycardia from oculocardiac reflex) - Urgent repair needed.	Varies. If outpatient and uncomplicated f/u few days. If inpatient and undergoing urgent repair: Ophtho should be contacted within 12 hours.
Orbital compartment syndrome	Clinical evidence of "tight orbit" - tense lids (from hemorrhage or soft tissue swelling), +/- proptosis, resistence to retropulsion of globe, + "orbit signs", +/- retro bulbar hemorrhage on CT	Call, but timely treatment supercedes waiting for ophthalmology.
Cellulitis	Evaluate "orbit signs" - vision, pupils, bulbar redness, motility, "tightness" of orbit, CT orbits scan often helpful, subperiosteal abscess on CT with clinical "orbit signs" may need urgent operative drainage	Call if + "orbit signs"
Chemical exposure	Topical anesthetic aids in irrigation, examine/sweep fornices for retained material, check pH at several time points	Call, but immediate treatment supercedes communication with ophthalmology

Clinical Scenario - ER	Pearls	Typical disposition/communication
Suspected angle closure	Repeat pressure measurement, smaller sluggish pupil, most will also have decreased vision, inquire if on Topamax/Topiramate	Call
Suspected iritis		Call vs cycloplegic with 1 day f/u
Suspected open globe	Seidel test if corneal, peaked pupil, purple uvea hidden under conjunctival hemorrhage, CT can be helpful. Eye pressure can be normal or low	Obvious Open globe: CT scan, NPO, shield over the eye, tetanus shot, avoid manipulation - no pressure check etc once confident it's ruptured
Unilateral painless vision loss	How much better is the "pinhole" vision? There there a relative afferrent pupil defect? Do they have symptoms of possible temporal arteritis?	Discuss with ophthalmology (DDx includes - vascular occlusions, ischemic optic neuropathy, vitreous hemorrhage, retinal detachment, migraine, and others)
Unexplained eye pain/redness	Upper lid eversion, orbit process, viral history, contact lens complications	Call or topical antibiotic/cycloplegic 1 day f/u
Unequal pupils - Anisocoria	Consider 3rd nerve palsy, Horner's, unintended pharmacologic effect	Varies
General Trauma		
General peri-ocular trauma	If no sign of open globe or orbital compartment syndrome, evaluate to the extent possible for afferent pupillary defect (swinging light test) and vision. Many trauma patients have miotic pupils from narcotic pain control and this is difficult	Varies, typically call within 12-24 hours. See orbit fracture section above
Orbital compartment syndrome	Clinical evidence of "tight orbit" - tense lids (from hemorrhage or soft tissue swelling), +/- apparent proptosis, resistence to retropulsion of globe, + "orbit signs", +/- retro bulbar hemorrhage on CT. This is an underappreciated emergency.	Call, but immediate treatment supercedes waiting for ophthalmology. Treatment is emergent canthotomy and cantholysis.
Cannulicular/lid margin laceration	A minority of ophthalmologists repair these	No immediate management issues, call within 12 hours for either treatment or to initiate the planning for repair. Topical antibiotic drop or ointment

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